

Title (en)

STRENGTHENED GLASS SUBSTRATES WITH GLASS FRITS AND METHODS FOR MAKING THE SAME

Title (de)

VERSTÄRKT GLASSUBSTRATE MIT GLASFRTTEN UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

SUBSTRATS DE VERRE RENFORCÉ AVEC DES FRITTES DE VERRE ET LEURS PROCÉDÉS DE FABRICATION

Publication

**EP 2844619 A1 20150311 (EN)**

Application

**EP 13723621 A 20130503**

Priority

- US 201213464493 A 20120504
- US 2013039434 W 20130503

Abstract (en)

[origin: US2013295353A1] Strengthened glass substrates with glass fits and methods for forming the same are disclosed. According to one embodiment, a method for forming a glass frit on a glass substrate may include providing a glass substrate comprising a compressive stress layer extending from a surface of the glass substrate into a thickness of the glass substrate, the compressive stress having a depth of layer DOL and an initial compressive stress CSi. A glass frit composition may be deposited on at least a portion of the surface of the glass substrate. Thereafter, the glass substrate and the glass frit composition are heated in a furnace to sinter the glass fit composition and bond the glass frit composition to the glass substrate, wherein, after heating, the glass substrate has a fired compressive stress CSf which is greater than or equal to 0.70\*CSi.

IPC 8 full level

**C03C 3/16** (2006.01); **B60J 1/00** (2006.01); **C03C 3/19** (2006.01); **C03C 3/21** (2006.01); **C03C 8/02** (2006.01); **C03C 8/04** (2006.01); **C03C 8/08** (2006.01); **C03C 17/04** (2006.01); **C03C 21/00** (2006.01)

CPC (source: CN EP US)

**C03C 3/17** (2013.01 - CN EP US); **C03C 3/19** (2013.01 - CN EP US); **C03C 3/21** (2013.01 - US); **C03C 4/02** (2013.01 - CN EP US); **C03C 4/18** (2013.01 - US); **C03C 8/08** (2013.01 - CN EP US); **C03C 17/04** (2013.01 - CN EP US); **C03C 2204/00** (2013.01 - US); **C03C 2207/00** (2013.01 - US); **Y10T 428/24942** (2015.01 - EP US); **Y10T 428/315** (2015.01 - EP US)

Citation (search report)

See references of WO 2013166367A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**US 2013295353 A1 20131107**; **US 9346708 B2 20160524**; CN 104411648 A 20150311; CN 104411648 B 20180703; EP 2844619 A1 20150311; EP 2844619 B1 20200513; JP 2015520724 A 20150723; KR 20150013221 A 20150204; US 2016236966 A1 20160818; WO 2013166367 A1 20131107

DOCDB simple family (application)

**US 201213464493 A 20120504**; CN 201380023547 A 20130503; EP 13723621 A 20130503; JP 2015510473 A 20130503; KR 20147033788 A 20130503; US 2013039434 W 20130503; US 201615134539 A 20160421